

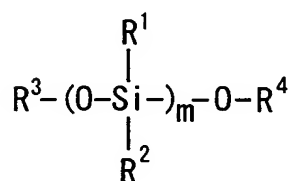
replaced by  
Art. 2634

## CLAIMS

1. A carrier for electrophotography in which a surface of at least a  
core material is coated with a resin,  
5 wherein the coating resin contains a fluorine modified silicone  
resin and an aminosilane coupling agent, and  
wherein the carrier charges a toner negatively.
2. The carrier for electrophotography according to claim 1,  
10 wherein the resin coating layer further comprises conductive  
microparticles within a range of 1 to 15 weight parts with respect to 100  
weight parts of the coating resin.
3. The carrier for electrophotography according to claim 1,  
15 wherein the aminosilane coupling agent is included in a range of  
5 to 40 weight parts with respect to 100 weight parts of the coating resin.
4. The carrier for electrophotography according to claim 1,  
wherein the proportion of the coating resin is within a range of  
20 0.1 to 5.0 weight parts with respect to 100 weight parts of the carrier  
core material.
5. The carrier for electrophotography according to claim 1,  
wherein a releasing agent wax is further added to the toner  
25 within a range of 4 to 20 weight parts with respect to 100 weight parts of  
a binding resin of the toner.
6. The carrier for electrophotography according to claim 1,  
wherein inorganic microparticles with an average particle size of  
30 6 to 120 nm that has been subjected to a hydrophobic treatment are  
adhered on a surface of the toner within a range of 0.5 to 4.5 weight  
parts with respect to 100 weight parts of the toner.
7. The carrier for electrophotography according to claim 1,  
35 wherein the fluorine modified silicone resin is a crosslinked  
fluorine modified silicone resin obtained by reacting polyorganosiloxane  
and an organic silicon compound containing a perfluoro alkyl group.

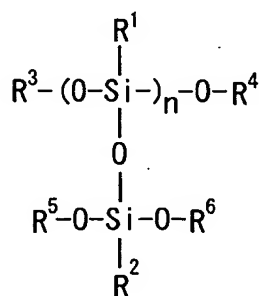
8. The carrier for electrophotography according to claim 7,  
 wherein the organic silicon compound containing a perfluoro  
 alkyl group is at least one compound selected from  $\text{CF}_3\text{CH}_2\text{CH}_2\text{Si}(\text{OCH}_3)_3$ ,  
 5  $\text{C}_4\text{F}_9\text{CH}_2\text{CH}_2\text{Si}(\text{CH}_3)(\text{OCH}_3)_2$ ,  $\text{C}_8\text{F}_{17}\text{CH}_2\text{CH}_2\text{Si}(\text{OCH}_3)_3$ ,  
 $\text{C}_8\text{F}_{17}\text{CH}_2\text{CH}_2\text{Si}(\text{OC}_2\text{H}_5)_3$ , and  $(\text{CF}_3)_2\text{CF}(\text{CF}_2)_8\text{CH}_2\text{CH}_2\text{Si}(\text{OCH}_3)_3$ .

9. The carrier for electrophotography according to claim 7,  
 wherein the polyorganosiloxane is at least one selected from  
 10 Chemical Formulas 1 and 2 below:



...Chemical Formula 1

where  $\text{R}^1$  and  $\text{R}^2$  denote a hydrogen atom, a halogen atom, a  
 hydroxy group, a methoxy group, or a C1 to C4 alkyl group or phenyl  
 group,  $\text{R}^3$  and  $\text{R}^4$  denote a C1 to C4 alkyl group or phenyl group, and m  
 15 denotes an average polymerization degree and is a positive integer,



...Chemical Formula 2

where  $\text{R}^1$  and  $\text{R}^2$  denote a hydrogen atom, a halogen atom, a  
 hydroxy group, a methoxy group, or a C1 to C4 alkyl group or phenyl  
 group,  $\text{R}^3$ ,  $\text{R}^4$ ,  $\text{R}^5$  and  $\text{R}^6$  denote a C1 to C4 alkyl group or phenyl group,  
 20 and n denotes an average polymerization degree and is a positive integer.

10. The carrier for electrophotography according to claim 7,  
 wherein the fluorine modified silicone resin is a crosslinked  
 fluorine modified silicone resin obtained by reacting an organic silicon  
 25 compound containing a perfluoro alkyl group with polyorganosiloxane  
 within a range of 3 to 20 weight parts with respect to 100 weight parts of

the polyorganosiloxane.

11. The carrier for electrophotography according to claim 1,  
wherein the aminosilane coupling agent is at least one selected  
5 from  $\gamma$ -(2-aminoethyl)aminopropyltrimethoxysilane,  
 $\gamma$ -(2-aminoethyl)aminopropylmethyldimethoxysilane, and  
octadecylmethyl[3-(trimethoxysilyl)propyl]ammonium chloride.